

COPY OF PAPERS ORIGINALLY FILED

[] Continuation [] Divisional

[X] CPA

THE UNITED STATES PATENT AND TRADEMARK OFFICE

The Commissioner of Patents and Trademarks Washington, D.C. 20231

Date: February 11, 2000 Docket No. PHN 15,364B Prior Art Unit 2817 Prior Ex. M. Shingleton

Sir:

This is a request for filing a:

- [X] continued prosecution application ("CPA") under 37 CFR 1.53(d)
- [] continuing application under 37 CFR 1.53(b)

of pending prior application Serial No. 08/675,665, filed on July 3, 1996 and continued on August 3, 1998 of Johannes B.A. van der Hoofden and Jozef W.J. Maes for CIRCUIT ARRANGEMENT IN WHICH THE INPUT AND OUTPUT VOLTAGE OF A DC TO DC CONVERTER ARE ADDED TOGETHER TO OPERATE A DISCHARGE LAMP.

- [] Enclosed are copies of ** sheets of specification and ** drawing sheets (all of which constitutes the specification and drawing in this application) and the Declaration and Power of Attorney as filed in the parent application.
- [] Amend the specification by inserting before the first line as a centered heading: --Cross Reference To Related Applications--; and insert below that as a new paragraph -- This is a [] continuation [] divisional of application Serial No. *, filed *.--
- [] An appointment of associates is enclosed.
- [] As last amended, the title has been changed to
- As last amended, the name of applicant(s) has changed to
- Before calculating the filing fee, cancel in this application original claims *.
- [X] The filing fee is calculated below:

	CLAIMS A	AS FILED IN	THIS APPLIC	ATION	
	Number	Number		Basic	
For	Filed	Extra	Rate	fee	<u>\$690</u>
Total Claims	- 20 =	X \$18	=		
Independ. Claims	- 3 =	X \$78	} =		
Mult. Dependent Cl	aims, if	any (\$260)	=		
Total Filing Fee-				 \$	690.00

Please charge the filing fee calculated above, plus any additional fees which may be required except for the Issue Fee, or credit any overpayment to Deposit Account No. D1-1270.

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Юву

- [X] Priority of application Serial No. 95201834.9, filed on July 5, 1995 in Europe, is claimed under 35 U.S.C. 119.
- [X] The certified copy of the priority application was filed in prior application Serial No. 08/675,665.
- [X] This application is assigned to U.S. Philips Corporation by way of the assignment filed in application Serial No. 08/675,665.
- [X] Address all future communications to Corporate Patent Counsel, U.S. Philips Corporation, 580 White Plains Road, Tarrytown, New York 10591.
- A preliminary amendment to this application is enclosed.
- [X] Enter in this application the amendment under 37 C.F.R. 1.116 which was unentered in the prior application.
- An Information Disclosure Statement is enclosed.
- [X] An Authorization Pursuant to 37 CFR 1.136(a)(3) is enclosed.

Robert Kraus

Registration No. 26,358

(914) 333-9634

U.S. Philips Corporation

580 White Plains Road

Tarrytown, New York 10591

CERTIFICATE OF EXPRESS MAILING

Express Mail Mailing Label No. EM009309752US

Date of Deposit February 22, 2000

I hereby certify that this paper and/or fee is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

Elissa DeLuccy Typed Name Signature



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Atty. Docket

VAN DER HOOFDEN ET AL

PHN 15,364

Serial No. 08/675,665

Group Art Unit 2817

Filed: July 3, 1996

Examiner Michael B. Shingleton

CIRCUIT ARRANGEMENT IN WHICH THE INPUT AND OUTPUT VOLTAGE OF A DC TO DC CONVERTER ARE ADDED TOGETHER TO OPERATE A DISCHARGE LAMP

Honorable Commissioner for Patents Washington, D.C. 20231

LETTER

Sir:

The status of the above-identified patent application is in question.

A CPA under 37 CFR 1.53(d) was filed on 22 February 2000 (copy attached with post-card receipt) while an appeal was pending. Accompanying the CPA was a request to enter the amendment under 37 CFR 1.116 which was unentered in the prior application.

In accordance with section (d)(2)(v) of 37 CFR 1.53, the prior application was expressly abandoned as of the filing date of the CPA. Nevertheless, proceedings in the Patent Office continued in respect of the prior application without any action regarding the CPA.

On 26 July 2002, after reviewing an Appeal-Board

Decision on the claims in the prior application, a supplemental

Amendment was filed (copy attached) in light of the Decision regarding the abandoned application, to place the claims in the CPA in better condition for prosecution.

In view of the above, it is believed that the CPA is pending, as amended in the papers filed on 22 February 2000 and 26 July 2002, and awaiting action by the Patent Office.

Confirmation of such status and expedited processing of the CPA is respectfully requested.

Respectfully submitted,

Ву____

Robert J. Kraus, Reg. 26,358

Attorney

(914) 333-9634

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Commissioner for Patents Washington, D.C. 20231

Date: Sept. 4, 20

By: Clessa De Luci

cc: Examiner M. Shingleton (via fax #703-872-9318)



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Atty (Docket

J. VAN DER HOOFDEN ET AL

PHN 15,364B

Serial No. 08/675,665

Group Art Unit 2817

Filed: July 3, 1996

Ex. M. Shingleton

CIRCUIT ARRANGEMENT IN WHICH THE INPUT AND OUTPUT VOLTAGE OF A DC TO DC CONVERTER ARE ADDED TOGETHER TO OPERATE A DISCHARGE LAMP

RECEIVED

Honorable Commissioner of Patents and Trademarks Washington, D.C. 20231

SFP 2 7 2002

OFFICE OF THE SPECIAL PROGRAMS EXAMINER

AUTHORIZATION PURSUANT TO 37 CFR §1.136(a) (3)

AND TO CHARGE DEPOSIT ACCOUNT

Sir:

The Commissioner is hereby requested and authorized to treat any concurrent or future reply in this application requiring a petition for extension of time for its timely submission, as incorporating a petition for extension of time for the appropriate length of time.

Please charge any additional fees which may now or in the future be required in this application, including extension of time fees, but excluding the issue fee unless explicitly requested to do so, and credit any overpayment, to Deposit Account No. 14-1270.

Respectfully submitted,

Robert J. Kraus, Reg. 26,358

Attorney

(914) 333-9634

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Atty. Docket

VAN DER HOOFDEN ET AL.

PHN 15,364B

Serial No. 08/675,665

Group Art Unit: 2817

Filed: July 3, 1996

Examiner: Michael B. Shingleton

Title:

CIRCUIT ARRANGEMENT IN WHICH THE INPUT AND OUTPUT VOLTAGE

OF A DC TO DC CONVERTER ARE ADDED TOGETHER TO OPERATE A

DISCHARGE LAMP

Commissioner for Patents Washington, D.C. 20231

SUPPLEMENTAL AMENDMENT

Sir:

In response to the Office Action dated December 3, 2001, please amend the above-identified application as follows:

IN THE SPECIFICATION

Page 4, in the paragraph beginning on line 1, change as follows:

In the embodiment shown in Fig. 1, the means I, or first circuit, is formed by input terminals K1 and K2 for connection to a supply voltage source which delivers a first DC voltage, capacitor C1, switching element T1, control circuit SC1, transformer Tr, capacitor C2, and diode D. Means II, or second circuit, is formed by switching elements T2-T5, and control circuit SC2. A lamp La is

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connected to the means II (second circuit).

IN THE CLAIMS

Please amend the claims as follows:

- 1. (five times amended) A circuit arrangement for operating a discharge lamp, the circuit arrangement having reduced power loss, comprising:
- a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source having a cathode and an anode for supplying the first circuit with the first DC voltage,

- a switching element,
- a control circuit coupled to the switching element for changing the conductive state of the switching element,
 - a unidirectional element, and
- a transformer having a primary and a secondary winding; and
- a second circuit coupled to the secondary winding for supplying current to the discharge lamp;

wherein the secondary winding, the input terminals, and the second circuit are coupled together such that the second circuit is supplied by a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage in order to transfer

some power from the voltage source directly to the second circuit without passing through the transformer,

thereby avoiding power loss that would result if the power directly transferred from the voltage source to the second circuit were instead transferred to the second circuit through the transformer.

- 2. (thrice amended) The circuit arrangement as claimed in Claim
- 1, wherein the lamp is a high-pressure discharge lamp.
- 4. (thrice amended) The circuit arrangement as claimed in Claim
- 1, wherein the first circuit comprises a DC-DC converter of the flyback type.

Please add the following claims:

- 8. The circuit arrangement as claimed in claim 1 wherein the control circuit controls the switching element so that the switching element is not self-oscillating.
- 9. The circuit arrangement as claimed in claim 1 wherein the first circuit further comprises;

first means for coupling the switching element and the primary winding of the transformer in a first series circuit to said input terminals,

a capacitor, and

second means for coupling the unidirectional element and the capacitor in a second series circuit to the transformer secondary winding.

10. The circuit arrangement as claimed in claim 9 further comprising;

means connecting the anode terminal of the input terminals to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

11. The circuit arrangement as claimed in claim 10 further comprising;

second means connecting a second input of the second circuit to a circuit point between the capacitor and the unidirectional element.

12. The circuit arrangement as claimed in claim 1 further comprising;

means connecting a first input terminal to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

13. The circuit arrangement as claimed in claim 12 wherein the second circuit includes at least second and third switching elements coupled to output terminals adapted for connection to the discharge lamp,

the control circuit switches the first switching element at a high frequency, and the circuit arrangement further comprises;

- a further control circuit that switches the second and third switching elements on and off at a low frequency.
- 14. A circuit arrangement for operating a discharge lamp comprising:
- a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source for supplying the first circuit with the first DC voltage,

- a switching element coupled to the input terminals,
- a control circuit coupled to the switching element for turning the switching element on and off at a high frequency,

- a unidirectional element, and
- a transformer having a primary winding and a secondary winding; and

a second circuit coupled to the secondary winding and to output terminals for supplying current to a discharge lamp; and

means coupling the secondary winding, the input terminals, and the second circuit together such that the second circuit is supplied with a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage.

15. The circuit arrangement as claimed in claim 14 further comprising;

means connecting a first input terminal to a first input of the second circuit via a circuit path that excludes the first circuit thereby to supply the second circuit with said first DC voltage.

- 16. The circuit arrangement as claimed in claim 15 further comprising;
 - a capacitor, and

means for coupling the capacitor and the unidirectional element to the transformer secondary winding and to a second input of the second circuit.

REMARKS

This is a Preliminary Amendment.

The specification has been amended in order to provide better antecedent support for the terminology used in certain claims of this application.

claim 1 was amended in order to cancel the subject matter added thereto in the Rule 116 amendment filed 7/26/99 and refused entry in an Advisory Action dated 9/3/99 (Paper No. 21). Claims 2 and 4 were amended to be dependent on claim 1 instead of claim 7.

Claims 1, 2 and 4-7 are all in condition for allowance since the Board of Appeals held, in a decision dated 5/24/02, that claims 1, 2 and 4-6 were all patentable over the applied prior art of record and the Patent and Trademark Office found claim 7 to be allowable in the Final Rejection dated 2/17/99. The Rule 116 amendment of claim 1 overcomes the rejection thereof under 35 U.S.C. §112, second paragraph, by clarifying the subject matter relating to "the secondary circuit". Claims 1, 2 and 4-7 are now clear and definite and are in full compliance with the requirements of 35 U.S.C. §112, second paragraph.

Claims 8-16 were added in order to provide Applicants with protection commensurate in scope with the invention disclosed.

Claims 8-13 are patentable because they are dependent on allowed claim 1 and because they contain further novel and unobvious features over the applied prior art of record. Claim 14 is patentable since the applied prior art does not teach, inter alia, means coupling a secondary winding, input terminals and a second circuit together such that the second circuit is supplied with a voltage whose amplitude is equal to the sum of the first DC voltage and the second DC voltage. Claims 15 and 16 are patentable because they are dependent on claim 14 and because they contain further novel and unobvious features over the applied art of record. For example, claim 15 recites means connecting a first input terminal to a first input of a second circuit via a circuit path that excludes a first circuit thereby to supply a second circuit with a first DC voltage. This feature is novel and unobvious. Claims 10 and 12 contain similar subject matter.

Claim 8 adds further novel subject matter which was described in the Rule 116 amendment of 7/26/99.

Claim 9 adds further circuit details of the claimed first circuit and claim 11 adds a circuit detail of the second circuit.

Claim 13 also adds further circuit details as well as the control circuits operating the first switching element at a high frequency and the second and third switching elements at a low

frequency. Claim 16 too adds other novel circuit details.

Please charge the cost of any additional fees in connection with the above amendment to Deposit Account No. 14-1270.

An early examination and allowance of the application are respectfully requested.

Respectfully submitted,

By Servard Toughlan Bernard Franzblau, Reg. 20,346 Patent Consultant (914) 333-9614 July 26, 2002

CERTIFICATE OF MAILING

It is hereby certified that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to:

COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231

On 7/26/02

Bernard Franzblau, Reg. 20,346

APPENDIX A

Marked-up version of amended specification

Page 4, in the paragraph beginning on line 1, change as follows:

In the embodiment shown in Fig. 1, the means I—are, or first circuit, is formed by input terminals K1 and K2 for connection to a supply voltage source which delivers a first DC voltage, capacitor C1, switching element T1, control circuit SC1, transformer Tr, capacitor C2, and diode D. Means II—are, or second circuit, is formed by switching elements T2-T5, and control circuit SC2. A lamp La is connected to the means II (second circuit).

APPENDIX B

Marked-up version of amended claims

- 1. (five times amended) A circuit arrangement for operating a discharge lamp, the circuit arrangement having reduced power loss, comprising:
- a first circuit for generating a second DC voltage from a first DC voltage, including

input terminals for connection to a voltage source having a cathode and an anode for supplying the first circuit with the first DC voltage,

- a switching element that is not self oscillating,
- a separate control circuit coupled to the switching element for changing the conductive state of the switching element,
 - a unidirectional element, and
- a transformer having a primary and a secondary winding; and
- a second circuit coupled to the secondary winding for supplying current to the discharge lamp;

wherein the secondary winding, the input terminals, and the second circuit are coupled together such that the second circuit is supplied by a voltage whose amplitude is equal to the sum of the

first DC voltage and the second DC voltage in order to transfer some power from the voltage source directly to the second circuit without passing through the transformer,

thereby avoiding power loss that would result if the power directly transferred from the voltage source to the second circuit were instead transferred to the second circuit through the transformer.

- 2. (thrice amended) A-The circuit arrangement as claimed in Claim 71, wherein the lamp is a high-pressure discharge lamp.
- 4. (thrice amended) A-The circuit arrangement as claimed in Claim 71, wherein the means I comprise first circuit comprises a DC-DC converter of the flyback type.